# IDENTIFICATION AND LOCATION SYSTEM FOR PERSONNEL AND VEHICLES

#### **REMARKS**

This reply is fully responsive to the Office Action dated January 12, 2006, and is filed within one (1) month following the mailing date of the Office Action.

### 5 Claims Status Summary:

Claims 1-15 are pending in the application.

The Office Action subjected claims 1-15 to restriction and/or election requirement.

Claims 7-11, and 15 are provisionally elected for prosecution (with traverse).

Claims 1-5, 6, 12-14 are withdrawn without prejudice (with traverse).

#### **RESTRICTION UNDER 35 U.S.C. 121**

The Office Action required a restriction under 35 U.S.C. 121, and required applicant to elect a single invention for prosecution on the merits.

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# RECONSIDERATION OF REQUIREMENT UNDER 37 CFR 1.143

In reply to the required restriction under 35 U.S.C. 121, and in accordance with 37 CFR 1.143, Applicants have made the following **provisional ELECTION** of the invention for prosecution on the merits **WITH TRAVERSE**:

#### **RESTRICTION TO INVENTION - IV: CLAIMS 7-11, AND 15.**

It should be noted that the above elections are intended to comply with the requirements of 35 U.S.C. 121, and are not intended to prejudice Applicants' rights or in any way create an estoppel preventing Applicants from arguing allowability of canceled and or withdrawn claims (if any) in further off-spring applications, including divisional(s).

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# A TRAVERSE OF A REQUIREMENT TO RESTRICT- under 37 CFR 1.143

Applicants respectfully disagree with the requirement for restriction in relation to inventions I and II, III and IV, and V, VI, and VII.

- Applicants respectfully traverse, and request reconsideration and withdrawal of the restriction requirements made by the Office Action in relation to invention I, which includes claims 1-5, 7-11, and 15, and invention II, which includes claims 6, 12-13, and 14.
- Further more, Applicants respectfully traverse, and request reconsideration and withdrawal of the restriction requirements made by the Office Action in relation to invention III, which includes claims 1-5, and 15, and invention IV, which includes claims 7-11, and 15.
- Finally, Applicants respectfully traverse, and request reconsideration and withdrawal of the restriction requirements made by the Office Action in relation to invention V, which includes claim 6, invention VI, which includes claims 12-13, and invention VII, which includes claim 14.
- Applicants respectfully traverse the restriction requirements and the assertions made by the Office Action for restriction. As evident from the below remarks, Applicants respectfully submit that none of the claims 1-15 should be separated by a restriction to inventions I and II. In addition, Applicants respectfully submit that the claims 1-5, 7-11, and 15 should not be separated by a restriction to inventions III and IV.

  Finally, Applicants respectfully submit that the claims 6 and 12-14 should not be separated by a restriction to inventions V, VI, and VII.

#### 1. TRAVERSE OF RESTRICTIONS FOR INVENTIONS I and II:

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The Office Action stated that invention I claims are "claims 1-5, 7-11, and 15, drawn to surveillance system, classified in class 342, subclasses 357.01."

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The Office Action further stated that invention II claims are "claims 6, 12-13, and 14, drawn to an Identification Friend or Foe (IFF) unit, classified in class 342, subclass 45."

The Office Action further stated, "Inventions I and II are related as combination and sub-combination," and cited paragraphs from MPEP 806.05(c) in support of the restriction.

Applicants respectfully submit that claims 1-5, 7-11, and 15 restricted to

invention I include limitations, inter alia, which are directed to an IFF unit. In addition, claims 6, 12-13, and 14 restricted to invention II also include limitations, inter alia, that are directed to an IFF unit. A mere cursory review of both sets of claims for restrictions I and II would reveal that the bulk of both sets (in relation to IFF unit) incorporate language that is directed (or lends itself) to similar class/subclass patent searches.

Therefore, any patent search for both inventions I and II must include similar class and subclass searches related to all of the claims. MPEP 803 states, "If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions."

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Accordingly, Applicants respectfully submit that no burden is placed on the Examiner for the search and examination of the entire application, given the subject matter of the claimed limitations. Therefore, the Examiner is respectfully requested to examine the entire application on the merits, even though the application may include claims to independent or distinct inventions (alleged by the Office Action).

The following are specific examples of language in relation to an IFF unit, which are found in ALL of the claims, which would compel one to include class and subclass searches related to IFF units for all of the claims:

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### IDENTIFICATION AND LOCATION SYSTEM FOR PERSONNEL AND VEHICLES

### **Inventions I and III: Claim 1:**

Claim 1 recites, inter alia,

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"...IFF unit ... responsive to said surveillance signals exceeding a predetermined power level for broadcasting messages containing identification and location information..."

# **Inventions I and III: Claim 2:**

Claim 2 recites, inter alia,

"...said IFF unit ... includes a GPS receiver for determining time and the location...."

### Inventions I and III: Claims 3, 4, and 5:

Claims 3, 4, and 5 are dependent from claim 1, and hence, include all of the limitations of claim 1, including the limitations, *inter alia*, which are directed to the IFF unit.

#### **Inventions II and V: Claim 6:**

Claim 6 recites, inter alia,

"...GPS receiver receives signals from GPS satellites and derives data including current time and IFF unit location;

said radar signal detector responds to surveillance radar main beam and generates commands to transmit data;

said data communication transmitter responsive to each said command to transmit data broadcasts a message containing identification information, and GPS derived time and position of said IFF unit."

#### **Inventions I and IV: Claim 7:**

Claim 7 recites, inter alia,

"...IFF unit coupled to at last one object broadcasts repeatedly at predetermined times messages containing identification and location information of said object coupled to said IFF unit..."

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### **Inventions I and IV: Claim 8:**

Claim 8 recites, inter alia,

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"...IFF unit...includes a GPS receiver for determining parameters including time and the location of said object."

# Inventions I and IV: Claims 9, 10, and 11:

Claims 9, 10, and 11 are dependent from claim 7, and hence, include all of the limitations of claim 7, including the limitations, *inter alia*, which are directed to the IFF unit.

### **Inventions II and VI: Claim12:**

Claim 12 recites, inter alia,

"...GPS receiver receives signals from GPS satellites and derives data including current time and IFF unit location;

said transmit controller compares said current time with predetermined times of transmission stored in memory, and generates commands to transmit data;

said data communication transmitter responsive to each said command to transmit data broadcasts a message containing identification information, and GPS derived time and position of said IFF unit."

#### **Inventions II and VI: Claim 13:**

Claim 13 recites, inter alia,

"...said data communication transmitter function is provided by a bi-directional communication device."

Further more, claim 13 is dependent from claim 12, and hence, includes all of the broader limitations of claim 12, including the limitations, *inter alia*, which are directed to the IFF unit.

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# IDENTIFICATION AND LOCATION SYSTEM FOR PERSONNEL AND VEHICLES

#### Inventions II and VII: Claim 14:

Claim 14 recites, inter alia,

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"...GPS receiver receives signals from GPS satellites and derives data including current time and IFF unit location;

said bi-directional communication device responds to a received command and broadcasts a message containing identification information, and GPS derived time and position of said IFF unit."

#### Inventions I, III, and IV: Claim 15:

10 All three of the inventions contain claim 15.

Accordingly, as stated above, Applicants respectfully disagree with the requirement for the restriction, in particular, in view of the above remarks in relation to the limitations of an IFF unit found in ALL of the claims. Given the fact that any patent search for both inventions I and II must include class and subclass searches related to IFF units, the search and examination of the entire application can be made without serious burden.

Therefore, Applicants respectfully and <u>strongly</u> traverse the restriction and the assertion made by the Office Action that the claims are drawn to separate inventions I and II. As evident from the above remarks, Applicant respectfully submits that none of the claims should be under restriction requirements because the search and examination of the entire application can be made without serious burden. Accordingly, Applicants respectfully traverse, and request reconsideration and withdrawal of the restriction, and examination of all of the claims by the Office.

#### 2. TRAVERSE OF RESTRICTIONS FOR INVENTIONS III AND IV:

The Office Action stated that the invention III claims are "claims 1-5, and 15, drawn to surveillance unit including an IFF unit responsive to surveillance signals exceeding a predetermined power level, classified in class 342, subclasses 44."

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The Office Action further stated that the invention IV claims are "claims 7-11, and 15, drawn to surveillance unit including an IFF unit which broadcasts repeatedly at predetermined times messages, classified in class 342, subclass 357.09."

The Office Action further stated, "Inventions III and IV are related as sub-combinations disclosed as usable together in a single combination." The Office Action has provided a one-way distinctness argument by stating, "In the instant case, invention III has separate utility such as detecting a power level of a surveillance signal." The Office Action continues by reciting standard form paragraphs from the MPEP.

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Applicants respectfully submit that the same arguments above as applied to restriction for inventions I and II can also be applied to restriction for the inventions III and IV.

Applicants respectfully submit that claims 1-5, and 15 restricted to invention III include limitations, *inter alia*, which are directed to a surveillance unit and an IFF unit. In addition, claims 7-11, and 15 restricted to invention IV also include limitations, *inter alia*, which are directed to a surveillance unit and an IFF unit. A mere cursory review of both sets of claims for restrictions III and IV would reveal that the bulk of both sets of claims 1-5, 15 for invention III, claims 7-11, and 15 for invention IV incorporate language that is directed (or lends itself) to similar class/subclass patent searches. Therefore, any patent search for both inventions III and IV must include similar class and subclass searches related to both sets of claims. As indicated above, MPEP 803 states, "If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions."

Applicants respectfully submit that no burden is placed on the Examiner for the search and examination of both supposed inventions III and IV because of the similar searching scheme. Therefore, the Examiner is respectfully requested to examine the

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entire application on the merits, even though the application may include claims to independent or distinct inventions (alleged by the Office Action).

Given the fact that any patent search for both inventions III and IV must include similar class and subclass searches for both, the search and examination of the entire application can be made without serious burden. Applicants respectfully traverse, and request reconsideration and withdrawal of the restriction requirements made by the Office Action.

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#### Single Embodiment, Claims Defining Same Essential Features – MPEP 806.03

In addition to the above remarks in relation to inventions III and IV for similar class/subclass searches, Applicants further respectfully submit that the inventions III and IV include claims that define, *inter alia*, the essential characteristics of a single disclosed embodiment of an invention (e.g., surveillance system and IFF unit), and therefore restriction therebetween claims 1-5, 7-11, and 15 should never be required. This is because the claims 1-5, 7-11, and 15 are but different definitions of the same disclosed subject matter (e.g., surveillance system and the IFF unit), varying in breath or scope of definition.

Exemplary support paragraphs from the specification for the essential features for the IFF unit 20 in particular, being claimed in claims 1-5, 7-11, and 15 are illustrated in FIGS. 3, 4, and 5, and described on page 17, line 17; page 19, lines 10 to 13; page 19, lines 18-19; and page 20, line 10 to page 21, line 2.

More specifically, in relation to claim 1, which claims, *inter alia*, the feature of the IFF unit "responsive to surveillance signals exceeding a predetermined power level", page 20, lines 10+ state (please see also FIGS. 4 and 5),

"The comparator output switches to its maximum value when the output of amplifier 54 exceeds the value of the threshold voltage in response to the reception of the main beam of the surveillance radar."

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In addition, in relation to claim 7, which claims, *inter alia*, the feature of the same IFF unit 20 "which broadcasts repeatedly at predetermined times messages" page 19, lines 10+ state,

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"This transmission of identification and positional data is repeated each time the main beam of the surveillance radar antenna completes a revolution and again aims the main beam toward the IFF unit. Alternatively as a power saving method the transmission may need only occur every N times a Ray 21 is detected, where N may be a fixed number or may be a variable."

Accordingly, restrictions III and IV define, *inter alia*, the essential characteristics of a single disclosed embodiment of an invention (the same IFF unit), and therefore, a restriction therebetween should never be required. This is because the claims for restrictions III and IV are but a different definition of the same disclosed subject matter (for example, the IFF unit), varying in breath or scope of definition. For example, claim 1 claims the feature, *inter alia*, IFF unit "responsive to surveillance signals exceeding a predetermined power level," which varies in breath or scope of definition from claim 7, which claims, *inter alia*, the feature of the same IFF unit, "which broadcasts repeatedly at predetermined times messages."

As stated above, Applicant respectfully disagrees with the requirement for the restriction for claims 1-5, 7-11, and 15, in particular, in view of the above remarks. Applicants respectfully traverse, and request reconsideration and withdrawal of the restriction requirements made by the Office Action in relation to claims 1-5, 7-11, and 15.

Accordingly, Applicants respectfully and <u>strongly</u> traverse the restriction and the assertion made by the Office Action that the claims 1-5, 7-11, and 15 are drawn to two separate inventions III and IV. As evident from the above remarks, Applicant respectfully submits that claims 1-5, 7-11, and 15 should <u>not</u> be under restriction

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requirements. Applicants respectfully traverse, and request reconsideration and withdrawal of the restriction, and examination of these claims by the Office.

### 3. TRAVERSE OF RESTRICTIONS FOR INVENTIONS V, VI, and VII:

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The Office Action stated that invention V claim is the "claim 6, drawn to an IFF unit including a radar signal detector responds to surveillance radar main beam and generates commands to transmit data classified in class 342, subclasses 73+."

The Office Action further stated that invention VI claims are "claims 12-13, drawn to an IFF unit including a transmit controller compares the current time with predetermined times of transmission stored in memory to generate commands to transmit data, classified in class 342, subclass 88."

Finally, the Office Action stated that invention VII claim is the "claim 14, drawn to an IFF unit including a bi-directional communication device responds to a received commands and broadcasts a message, classified in class 342, subclass 45."

The Office Action further stated, "Inventions V, VI, and VII are related as subcombinations disclosed as usable together in a single combination." The Office Action has provided a one-way distinctness argument by stating that each of the inventions have separate utility. The Office Action continues by reciting standard form paragraphs.

Applicants respectfully submit that the same arguments above as applied to restriction for inventions I and II, and III and IV can also be applied to restriction for the inventions V, VI, and VI.

Applicants respectfully submit that claim 6 restricted to invention V, claims 12-13 restricted to invention VI, and claim 14 restricted to invention VII include limitations, inter alia, which are directed to IFF unit. A mere cursory review of all sets of claims for restrictions V to VII would reveal that the bulk of the claim 6 for invention V, claims 12-13 for invention VI, and claim 14 for invention VII incorporate language that is directed

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(or lends itself) to similar class/subclass patent searches. Therefore, any patent search for any of the inventions V to VII must include similar class and subclass searches related to all of the claims in inventions V to VII. As indicated above, MPEP 803 states, "If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions."

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Applicants respectfully submit that no burden is placed on the Examiner for the search and examination of supposed inventions V to VI because of the similar searching scheme. Therefore, the Examiner is respectfully requested to examine the entire application on the merits, even though the application may include claims to independent or distinct inventions (alleged by the Office Action).

Given the fact that any patent search for inventions V to VI must include similar class and subclass searches for all, the search and examination of the entire application can be made without serious burden. Applicants respectfully traverse, and request reconsideration and withdrawal of the restriction requirements made by the Office Action.

### Single Embodiment, Claims Defining Same Essential Features - MPEP 806.03

In addition to the above remarks in relation to inventions V, VI, and VII for similar class/subclass searches, Applicants further respectfully submit that the inventions V, VI, and VII include claims that define, *inter alia*, the essential characteristics of a single disclosed embodiment of an invention (e.g., the IFF unit), and therefore restriction therebetween claims 6, 12-13, and 14 should never be required. This is because the claims 6, 12-13, and 14 are but different definitions of the same disclosed subject matter (e.g., IFF unit), varying in breath or scope of definition.

Exemplary support paragraphs from the specification for the essential features for the IFF unit 20, being claimed in claims 6, 12-13, and 14 are illustrated in FIGS. 3, 4, and

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5 and described on page 18, lines 10 to 14 and lines 20 to 22; page 19, lines 2 to 10; page 20, line 17 to page 21, line 2; page 24, lines 4 to 8; and page 25, lines 12 +.

In particular, in relation to claim 6, which claims, *inter alia*, the feature of the IFF unit "including a radar signal detector responds to surveillance radar main beam and generates commands to transmit data," page 19, lines 2 to 10, state (please see also FIGS. 4 and 5),

"When the radar main beam (Ray 21) is directed toward IFF unit 20, the increase in the radar signal amplitude is sensed and the radar receiver 40 generates a control signal 45 that is coupled to the communication link transmitter 43. Control signal 45 initiates the process whereby the identification message 44 from the identification code memory module 42 and the position, velocity and direction data 46 from the GPS receiver 41, including the time of position determination, are concatenated into a message that is transmitted by the communication link transmitter 43."

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Furthermore, and still in relation to claim 6, page 20, line 17 to page 21, line 2 state (please see also FIGS. 4 and 5),

- 20 "... in response to the reception of the main beam of the surveillance radar... The comparator output 57 comprises the control signal 45 that commands the communication link transmitter 43 to transmit a message containing the IFF unit's identification and position data."
- As to claims 12-13, which claim, *inter alia*, the feature of the IFF unit "including a transmit controller compares the current time with predetermined times of transmission stored in memory to generate commands to transmit data," page 18, lines 10 to 14 and lines 20 to 22, state (please see also FIGS. 4 and 5),
- 30 "Identification code memory module 42 includes a non-volatile, re-programmable digital memory device having sufficient memory to store all the identification parameters that

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may be needed to uniquely identify the IFF unit of which it is a part, and to authenticate its use by the authorized person 15 to which it is assigned... These identification code segments are concatenated into an identification message 44 that is supplied to the communication link transmitter 43."

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Furthermore, and still in relation to claims 12-13, page 24, lines 4 to 8 state (please see also FIGS. 4 and 5),

"The control signal 45 initiates the process whereby the identification message 44 from the identification code memory module 42 and the time, position, velocity and direction data 46 from the GPS receiver 41 are concatenated into a message that is transmitted by the communication link transmitter 43."

With respect to claim 14, which claims, *inter alia*, the feature of the IFF unit "including a bi-directional communication device responds to a received commands and broadcasts messages," page 25, lines 12 + state (please see also FIGS. 4 and 5),

"For example, while data communication transmitter 43 shown in FIG 3 is described as a transmitter, its function can also be provided by a bi-directional communication apparatus either networked or by direct communication."

Accordingly, claims 6, 12-13, and 14 define, *inter alia*, the essential characteristics of a single disclosed embodiment of an invention (the same IFF unit), and therefore, a restriction therebetween claims 6, 12-13, and 14 should never be required. This is because the claims 6, 12-13, and 14 are but a different definition of the same disclosed subject matter (the IFF unit 20), varying in breath or scope of definition.

MPEP 806.03. For example, invention V (claims 6) claims the feature, *inter alia*, IFF unit "including a radar signal detector responds to surveillance radar main beam and generates commands to transmit data," which varies in breath or scope of definition from inventions VI and VII, with invention VI (claims 12-13) claiming the feature of the same IFF unit 20, *inter alia*, "including a transmit controller compares the current time with

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predetermined times of transmission stored in memory to generate commands to transmit data." Both inventions V and VI claims vary in breath or scope of definition from each other and from invention VII (claim 14), claiming the feature of the same IFF unit 20, inter alia, "including a bi-directional communication device responds to a received commands and broadcasts messages."

As stated above, Applicant respectfully disagrees with the requirement for the restriction for claims 6, 12-13, and 14, in particular, in view of the above remarks. Applicant respectfully requests reconsideration and withdrawal of the restriction requirements made by the Office Action in relation to claims 6, 12-13, and 14.

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Accordingly, Applicants respectfully and <u>strongly</u> traverse the restriction and the assertion made by the Office Action that the claims 6, 12-13, and 14 are drawn to three separate inventions V, VI, and VII. As evident from the above remarks, Applicant respectfully submits that claims 6, 12-13, and 14 should <u>not</u> be under restriction requirements. Applicant respectfully traverse, and request reconsideration and withdrawal of the restriction, and examination of these claims by the Office.

It should be noted that in reciting passages (if any) from the description section of the present invention herein in response to the restriction requirements, it is <u>not</u> the intention of the Applicants to in any way restrict, limit, or create estoppel in relation to the recited claim languages. The present invention has been illustrated in the specification in relation to particular embodiments that are intended in all respects to be illustrative rather than restrictive. Accordingly, only the claims (rather than the cited passages or remarks (if any) herein in relation to the claims) describe the scope of the present invention. Therefore, the citing of any passages or statements herein in response to the restriction requirements are not intended to be restrictive, limiting, or create estoppel in relation to the scope of the claims. In addition, throughout this response, the term "exemplary" is used exclusively to mean "serving as an example, instance, or illustration." This term should not necessarily to be construed as preferred or advantageous.

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### **CONCLUSION**

It is respectfully submitted that the case is now in condition for allowance, and an early notification of the same is requested. If it is believed that a telephone interview will help further the prosecution of this case, Applicant respectfully requests that the undersigned be contacted at listed telephone number (949) 854-8405.

	Respectfully submitted,
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Date	Don J. Carnegie
15	Registration No. 39622

Don J. Carnegie
ST.GEORGE & CARNEGIE
Mailing Address:

20 5405 Alton Parkway Suite 5A #540 Irvine, California 92604

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nvine, Camonia 32004

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"For example, while data communication transmitter 43 shown in FIG 3 is described as a

requirements. Applicant respectfully traverse, and request reconsideration and withdrawal of the restriction, and examination of these claims by the Office.

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#### CONCLUSION

It is respectfully submitted that the case is now in condition for allowance, and an early notification of the same is requested. If it is believed that a telephone interview will help further the prosecution of this case, Applicant respectfully requests that the undersigned be contacted at listed telephone number (949) 854-8405.

Date

Don J. Carnegie

ST.GEORGE & CARNEGIE

Mailing Address: 5405 Alton Parkway Suite 5A #540

Irvine, California 92604

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Respectfully submitted,

Registration No. 39622